

What is claimed is:

1. An image display projector comprising:

a lamp light source;

5 a lens element for focusing a light beam emitted from the lamp light source;

a reflecting mirror for reflecting a light beam emitted from the lens element;

10 an elliptical mirror having a reflecting face with an elliptical shape for reflecting a light beam reflected by the reflecting mirror;

a light valve for modulating a light beam reflected by the elliptical mirror to thereby form image light; and

15 a projection lens for projecting the image light onto a screen; wherein

a light focusing point, where the light beam emitted from the lens element is focused is symmetric to one of the two focal points of the elliptical mirror with respect to the reflecting mirror, and

20 the center of an entry pupil of the projection lens is symmetric to the second focal point of the elliptical mirror with respect to the light valve.

2. An image display projector comprising:

25 a lamp light source;

a first lens element for focusing a light beam emitted from the lamp light source;

a prismatic optical element having

an entry face, on which the first lens element focus  
5 the light beam emitted from the lamp light source,

inner faces for reflecting a light beam entering from the entry face, and

an emission face for emitting the light entering from the entry face;

10 a second lens element for focusing a light beam emitted from the emission face of the prismatic optical element;

a reflecting mirror for reflecting a light beam emitted from the second lens element;

an elliptical mirror having a reflecting face with an  
15 elliptical shape for reflecting a light beam reflected by the reflecting mirror;

a light valve for modulating the light reflected by the elliptical mirror to thereby form image light; and

a projection lens for projecting the image light onto  
20 a screen; wherein

a light focusing point, where the light beam emitted from the second lens element is focused is symmetric to one of the two focal points of the elliptical mirror with respect to the reflecting mirror; and

25 the center of an entry pupil of the projection lens

is symmetric to the second focal point of the elliptical mirror with respect to the light valve.

3. The image display projector according to claim 2, wherein  
5 the second lens element is arranged so that the emission face of the prismatic optical element and the light valve are in a conjugate relationship.

4. The image display projector according to claim 2, wherein  
10 the entry face of the prismatic optical element is arranged close to a light focusing point where the light that passes through the first lens element is focused.

5. The image display projector according to claim 2, wherein  
15 the emission face of the prismatic optical element is shaped analogously to the light valve.